

Remarks

The claims are 1-6, with claims 1 and 4 being independent. Claims 7-10 have been cancelled without prejudice or disclaimer. Claims 1 and 4 have been amended to better define the invention. No new matter has been added. Reconsideration of the present claims is respectfully requested.

Claims 4-10 stand rejected under 35 U.S.C. §112, second paragraph. In light of Applicants' cancellation of claims 7-10 and amendment of claim 4 to address the Examiner's concerns, Applicants respectfully request withdrawal of this rejection.

Claims 1-10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Stray-Gunderson (U.S. Patent No. 5,114,723) in view of Schade (U.S. Patent No. 3,934,047) in further view of Jenner (U.S. Patent No. 4,927,646). Applicants respectfully traverse this rejection.

The present invention is directed to low-calorie beverage compositions sweetened with sucralose and acesulfame-K comprising a blend of calcium sulfate, calcium phosphate and potassium sulfate metal salts. The present invention is further directed to a method of improving the taste attributes of such a low-calorie beverage composition by adding such a blend of metal salts to the composition. The particular salts used in the blend of metal salts prescribed by the present invention were determined as a result of extensive testing on the part of the inventors. This blend, when used in an amount of 170-190 ppm in a finished beverage, maximally positively impacts the taste attributes which are typically negatively impacted by the use of artificial sweeteners, namely overall sweetness intensity, aftertaste, mouthfeel and sucrose quality. (See specification, page 5, line 31, through page 6, line 3; page 7, line 20, through page 8, line 13.) This synergistic

*✓ no further  
or comment  
this claim*

blend of metal salts, as well as the particular amount in which the blend is present, is not suggested by the cited combination of references.

Stray-Gunderson is directed to beverage compositions specifically formulated in order to effect rapid replenishment of lost fluids in a human. The beverage compositions may comprise a variety of electrolyte salts, including certain potassium and calcium salts such as calcium sulfate and calcium phosphate. The beverage compositions further include a low-caloric sweetener. Jenner, indeed, teaches a synergistic combination of sucralose and acesulfame-K. In addition, Schade teaches the use of aluminum potassium sulfate (or alum) in combination with a dipeptide sweetener to reduce the aftertaste associated therewith. Applicants submit that the combination of teachings outlined above would not lead one of ordinary skill in this art to produce the low-calorie beverage composition or to improve the taste attributes of such a low-calorie beverage composition according to the present invention.

More particularly, the above combination of cited references fails to provide one of ordinary skill in this art with the requisite guidance necessary to consistently obtain low-calorie beverages with improved taste attributes. Stray-Gunderson's broad disclosure related to the inclusion of any one or any combination of a laundry list of potassium and calcium salts does not render obvious the presently employed synergistic combination of potassium sulfate, calcium sulfate and calcium phosphate. Stray-Gunderson does not recognize any of the problems associated with the use of low-calorie sweeteners, i.e., overall sweetness intensity, aftertaste, mouthfeel, sucrose quality, let alone does it propose any remedial measures to address those problems. The calcium and potassium salts are included in the beverages of Stray-Gunderson only to provide

required electrolytes. What is more, Stray-Gunderson provides no guidance at all with regard to the selection or amount of inclusion of a combination of potassium and calcium salts which will serve the electrolyte-providing function particularly well, let alone any sort of taste improvement function.

Jenner does not remedy the deficiencies of Stray-Gunderson. Jenner merely teaches that a combination of sucralose and acesulfame-K is synergistic. In fact, Jenner does not even recognize that such a combination of sweeteners, while synergistic to a certain degree, still suffers from the problems associated with overall sweetness intensity, aftertaste, mouthfeel and sucrose quality. To that end, there would be no motivation to further attempt to improve the taste of beverages sweetened with the combination of sweeteners disclosed by Jenner, as those combinatorial sweeteners are already considered to provide acceptable taste in a beverage.

Likewise, Schade does not remedy the deficiencies of Stray-Gunderson and Jenner. Schade teaches the use of alum, which is different from the potassium sulfate used according to the present invention, in order to reduce aftertaste in dipeptide-sweetened beverages. Schade does not specifically disclose or suggest the use of alum in combination with other metal salts to address a variety of taste attributes negatively affected by the use of artificial sweeteners, i.e., overall sweetness intensity, aftertaste, mouthfeel, sucrose quality. Further, Schade does not specifically disclose or suggest the use of alum in a sucralose and acesulfame-K sweetened beverage.

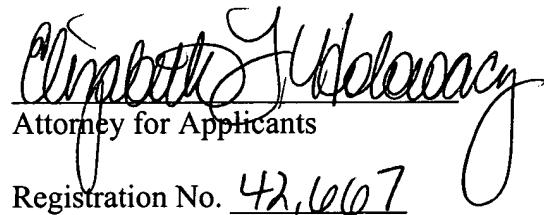
In sum, it is clear that no combination of the cited references renders the present invention obvious. There is simply no disclosure or suggestion of the use of a synergistic combination of potassium sulfate, calcium sulfate and calcium phosphate in a

sucralose and acesulfame-K sweetened beverage in order to improve taste attributes such as overall sweetness intensity, aftertaste, mouthfeel and sucrose quality. There is further no teaching or suggestion of the preferred amount of inclusion of such a synergistic blend of metal salts. Accordingly, Applicants respectfully request withdrawal of this rejection.

In view of the foregoing amendments and remarks, favorable reconsideration and passage to issue of the present case is respectfully requested.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,

  
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VERSION SHOWING CHANGES MADE TO CLAIMS

1. (Amended) A low-calorie beverage composition comprising sucralose and acesulfame-K sweeteners and a blend of calcium phosphate, calcium sulfate and potassium sulfate metal salts, wherein said blend is present in an amount from about 170 to about 190 ppm.

4. (Amended) A method of improving the taste attributes of a low-calorie beverage [by incorporating into the beverage] sweetened with sucralose and acesulfame-K sweeteners [and] comprising the step of adding a blend of calcium phosphate, calcium sulfate and potassium sulfate metal salts to the low-calorie beverage, wherein the blend is present in an amount from about 170 to about 190 ppm.

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